

Remarks:

Reconsideration of the application is requested.

Claims 1-31 remain in the application. Claim 20 has been amended. Claims 2-6 have been cancelled. Claims 1 and 8-19 have been withdrawn.

In item 4 on pages 2-3 of the above-identified Office action, claims 7 and 20-31 have been rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

More specifically, the Examiner has stated that the meaning of "areally" is not clear and that the structure and function of the apparatus of Fig. 5A are not clear.

With regard to the word "areally", this word is explicitly mentioned on page 6, line 14 of the specification. As described on page 20, lines 18-19 of the specification, the solar cell 30 is disposed over the whole area of the surface of the semiconductor wafer 10. From the above description in connection with Fig. 5A, a person skilled in the art would clearly understand the meaning of "areally" (the adverb of the word "area") in this context that the solar cell is disposed

over a certain extent of the surface area of the semiconductor wafer.

It is noted that the solar cell is disposed areally over the surface of the semiconductor wafer rather than directly on the surface of the semiconductor wafer. Therefore, it cannot mean that the solar cell is disposed between the chips and the semiconductor wafer, as stated by the Examiner. The language that the solar cell is disposed areally over the surface of the semiconductor wafer also includes the situation where the radiation-absorbing layer 12 and the chips 1 are arranged between the solar cell 30 and the wafer as shown in Fig. 5A. Since the chips are disposed on the semiconductor wafer, the solar cell is also disposed areally over the chips. The language of claim 1 has been amended to recite "said solar cell being disposed areally over said chips" to facilitate the Examiner's understanding.

With regard to the material for the radiation-absorbing layer, it is believed that one skilled in the art dealing with the manufacturing of the semiconductor devices, namely dealing with lithography processes, should be aware of the appropriate materials for forming a layer which is appropriate to absorb radiation. It is to be noted that, in addition to the material and independent therefrom, the thickness of the layer

may also be varied to a sufficient amount to obtain a radiation-absorbing layer.

In item 5 on page 3 of the above-identified Office action, claims 7 and 20-31 have been rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants do not agree with the Examiner's opinion that a semiconductor wafer with IC elements formed on or in the wafer is like a piece of plastic with coins embedded in the plastic. As can be seen from Fig. 4 of the drawings of the instant application, scribe lines 11 are disposed between the semiconductor chips. The scribe lines divide the semiconductor chips from each other and have a surface lower than the top surface of the chips. Figs. 5A and 5B, therefore, show the correct cross-sectional views.

With regard to the other rejections in item 5, please refer to the above detailed discussion with regard to the rejections in item 4.

In item 6 on page 4 of the above-identified Office action, claims 7 and 20-31 have been rejected as being indefinite under 35 U.S.C. § 112, second paragraph.

More specifically, the Examiner has stated that it is not clear what all the claimed elements are and it is not clear how they are interrelated and interconnected to produce the desired results. The Examiner has also stated that "said semiconductor chips" lacks proper antecedent.

The rejections in this item are not understood because Applicants believe that all the elements and the relationship therebetween have been clearly claimed in the claim language. For example, the functional unit according to claim 23, the receiver according to claim 24 and the detector according to claim 25 are clearly described with regard to their purpose and function within the test configuration.

In item 7 on page 4 of the above-identified Office action, the Examiner has stated that claims 7, 21, and 22 recite the broad recitation and the claims also recite no disclosure of composition of the radiation-absorbing layer is present, which is the narrower statement of the range/limitation.

This rejection is not understood and does not make sense. The Examiner states the concept, which is well-known, that the

same claim cannot recite both a broad and a narrow limitation. However, the Examiner states that the claims have no disclosure of the narrow statement. This would mean that no narrow limitation is present and therefore both broad and narrow limitations are not present. Claims 7, 21, and 22 also clearly recite the feature of the radiation-absorbing layer to further limit claim 20. The Examiner is requested to further explain his position.

It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, first and second paragraphs. Should the Examiner find any further objectionable items, counsel would appreciate a telephone call during which the matter may be resolved. The above-noted changes to the claims are provided solely for cosmetic and/or clarificatory reasons. The changes are neither provided for overcoming the prior art nor do they narrow the scope of the claims for any reason related to the statutory requirements for a patent.

In item 10 on page 5 of the above-mentioned Office action, claims 7 and 20-31 have been rejected as being anticipated by Cook et al. (US Pat. No. 6,300,785 B1) or Akram (US Pat. No. 6,119,255) under 35 U.S.C. § 102(e).

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and

the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 20 calls for, inter alia:

an energy source disposed above said semiconductor wafer and connected to said semiconductor chip for providing an electrical energy supply to said semiconductor chip, said energy source having at least one solar cell for generating an operating current for said semiconductor chip by optical radiation fed in contactlessly, said solar cell being disposed areally over said semiconductor chips.

In Cook et al., the diode (solar cell) is positioned in the kerf for supplying power to the chips. Also, in Akram the solar cell is disposed in the test board (see Fig. 4).

In contrast, according to the invention of the instant application the solar cell (30) is disposed above and over the semiconductor chips (1).

Clearly, neither Cook et al. nor Akram "an energy source disposed above said semiconductor wafer and connected to said semiconductor chip for providing an electrical energy supply to said semiconductor chip, said energy source having at least one solar cell for generating an operating current for said semiconductor chip by optical radiation fed in contactlessly,

said solar cell being disposed areally over said semiconductor chips", as recited in claim 20 of the instant application.

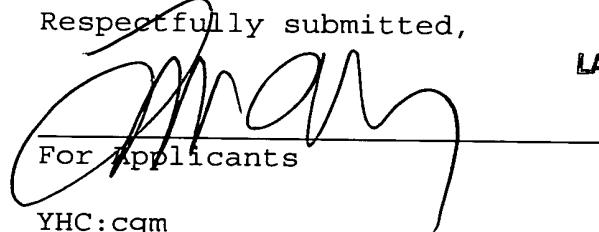
Claim 20 is, therefore, believed to be patentable over the art and since claims 7 and 21-31 are ultimately dependent on claim 20, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 7 and 20-31 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made. Please charge any fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,



For Applicants

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